. 030 6 MAY ORR WAS			00.100		В 1,	EE_/		
NON CIA	3-LCONFID	ENTIAL	OROUP BECLUDE FROM A POWNEGADING	I ATOMATIC	Y #1 REP	RODUCT 10	PRC	☐ 3 TI 8 I HC
012/2 maylorg	PERSON/UNIT NOTIF	IED			1 2		5	
SECSTATE WISh			•		3		7	
ORRZ	ADVANCE COPY	7 = 1.077 = 0	TUREÓ	17	T11	4E .		BY
S(FILE) ONE, OC	TIFA.	0/0/0	0 E	· / / /	رات (O ·		
Ann	OPP 2	RE.	ADDED.	frien Co	<u>· </u>	0.7	<u> </u>	
	Cristian Mary	/\ /**•	71008 B		MAR 2	<i>PF</i> 9 01	80	
TR KUEL				•		, O.J.	00	. ;
FUE		· · · · · · · · · · · · · · · · · · ·	. ,•					
G3706					• 5			
FR RUEHLG					•			
DE RUEHC 16738 Ø88ØØ	30	•		· · · · · · · · · · · · · · · · · · ·				
ZNY CCCCC			•	,				
PR 290015Z	•	•	•	1.			1	
M SECSTATE WASHDC /						•		
TO ZENZAMEMBASSY PAR	IS PRIORITY	4863	,				•	. 4
Surpris			*.					
STATE GRNC		•						
BI COLUMN			- T					
CONFIDENTI	A L MARCH 2	8.		•••••				
. NATUS								. "
EXCON			•		,	•		
CIA FOR WILLIAM N. M	ORELL JR.	V 5.15(14)						•
LIST REVIEW: IL 1520	AND 1523 (A	COMMUN	ICATION	S)	;		
TRANSMISSION EQUIPME	NT /				• • •			* * *
MEF: PARIS TEL. 5307			,	: .	,	•		
1	•		IS TO I	1				

25X1

State Dept. review completeded For Release 2002/07/02 : CIA-RDP70T00666R000200050051-3

CONFIDENTIAL

Encl # 4

CLASSIFIED MESSAGE

CONFIDENTIAL

IN-08909 PAGE 2052

AGREE TO AUTOMATIC APPROVAL OF EXCEPTIONS CASES FOR TELEPHONE EQUIPMENT OF 60 CHANNELS, 252 KCS, OR LESS, AND ASSOCIATED I 1520 EQUIPMENT FOR DESTINATIONS OTHER THAN TO FAR EAST AND THE SOVIET UNION PROVIDED SUBMITTING COUNTRY SATIS-

MACTORILY DETERMINES CIVIL END-USE;

PAGE 2 RUEHC 16738 C O N F I D E N T I A L

(B) U.S. WILLINGNESS GIVE SYMPATHETIC CONSIDERATION TO

EXCEPTIONS CASES ABOVE 60 CHANNESL FOR DESTINATION OTHER

THAN FAR EAST WHERE BONA FIDE CIVIL END USE HAS BEEN ASCER
TAINED FOR SUCH REQUESTS, AND ENTITE CASE OF SUBSEQUENT

EXCUSSES USERIED FOR ALL FARLIER REQUESTS TO SAME END USER

REQUESTS, VERIFIED FOR ALL EARLIER REQUESTS TO SAME END USER. USDEL SHOULD MAKE CLEAR THAT THIS ARRANGEMENT DOES NOT APPLY

TO TECHNICAL DATA FOR MANUFACTURE OF THE EQUIPMENT.

2. FYI. FOREGOING PROPOSAL SHOULD BE MADE ON AD REF BASIS
EECAUSE WASHINGTON AGENCIES ARE WILLING TO GO THIS FAR ONLY

TELEGRAM. END FYI.

GP-1. RUSK

Bï

果熟糖食品

Approved For Release 2002/07/02: CIA-RDP70T00666R000200050051-3

CON IDENTIAL

28 April 1966

MEMORANDUM FOR: Acting Chief, D/T

SUBJECT:

Intelligence Statement on Pulse-Code Modulation

(PCM) Equipment

1. The Chairman, EDAC Working Group I has requested a CIA opinion concerning the merits of trading a relaxation on Frequency Division Multiplex (FDM) equipment in return for a total embargo on PCM. Our position on this matter is considered in two distinct parts: (a) whether or not PCM equipment is covered by any present COCOM embargo, and (b) whether the suggested trade-off in COCOM would entail a net strategic loss or gain to the US.

- 2. From a technical standpoint, PCM equipment appears to be covered presently by List Items 1523 (a), 1568 (1), and 1593 (d) and (e). The degree to which these List Items provide coverage, however, varies widely, and none explicitly mentions PCM equipment. Item 1523 (a) embargoes the transmission equipment associated with PCM systems, and the technical specifications written into the present embargo would provide a cut-off at about 28 channels. The more crucial multiplexing equipment, nonetheless, operates independently of the frequency parameters given in List Item 1523 and therefore is not covered.
- 3. The PCM multiplexing process incorporates two distinct devices which are covered by present embargo language. The first,

Approved For Release 2002/07/02 : CIA-RDP70T00666 R000399550051-3

Enel#5

under List Item 1568 (1) is an analog-to-digital conversion technique which operates at least 30 times as rapidly as the cut-off point written into the embargo. The second, under List Item 1593 (d) and 1593 (e) is a timing device. The parameters relevant to a PCM timing device can vary somewhat with the information format used, but essentially the present wording of the embargo would appear to limit shipments to equipment having a capacity of less than 48 154 channels.

- 4. In general, therefore, it would appear that while PCM equipment is not specifically embargoed by COCOM agreement on List Item 1523, certain critical components are amply covered by the wording of other List Items. From this standpoint, a trade-off freeing FDM equipment in exchange for more specific wording on PCM would not result in a net advantage to the US.
- 5. With respect to the inherent merits of the suggested trade, we believe that the achievement of an embargo on PCM would not offset the strategic loss that would result from the release of long-haul, very high capacity FDM systems. It is in the area of long-distance and/or high-capacity communications that the Soviet Bloc and Communist Far East are least able to satisfy their requirements. The proposed trade-off would permit these countries to equip their strategic long-haul communications lines unrestricted by embargo limitations, and would maintain tight control over shorthaul, PCM systems largely inappropriate to their most urgent needs.

Approved For Release 2002/07/02 : CIA-RDP70T00666Re00200050051-3

There is little question that the technology and end-use of PCM communications systems would justify their embargo, but it is far from clear why the addition of this equipment to the embargo list must be achieved at the cost of releasing other strategic material.

	,	
25X1A	,	

TAT

Approved For Release 2002/07/02 : CIA-RDP70T00666R000200050051-3

Next 1 Page(s) In Document Exempt